

## **MATERIAL SAFETY DATA SHEET – SOLAR/MARINE SALT**

**PRODUCT NAME:** SOLAR/MARINE SALT

**PRODUCT DESCRIPTION:** Sodium Chloride (NaCl). 99%

**HAZARDS IDENTIFICATION:** Unlikely to cause harmful effects under normal conditions of handling and use.

### **FIRST AID TREATMENT**

Skin	Wash with plenty of water.
Eyes	Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. If symptoms develop, obtain medical attention.
Inhalation	Remove patient to fresh air. Keep warm and at rest. Give drinks if desired.
Ingestion	Vomiting will probably occur. Wash out mouth with clean water. Providing the patient is conscious give 200-300ml (half a pint) of water to drink. Obtain immediate medical attention if ill-effects occur.

### **FIRE AND EXPLOSION HAZARDS**

- Non-combustible.
- Use fire fighting equipment as appropriate to surrounding fire.
- No special requirements for fire fighting protective equipment.
- Salt withstands temperatures up to its melting point and beyond without decomposing, but at very high temperatures (greater than approximately 800°C) a vapour is omitted which is particularly irritating to the eyes.

### **ACCIDENTAL RELEASE MEASURES**

- Clear up spillages.
- Transfer to a container for disposal.
- Wash the spillage area with water.
- Spillages or uncontrolled discharges into water courses, drains or sewers must be IMMEDIATELY alerted to the Environmental Agency/SEPA or other appropriate regulatory body.

### **HANDLING AND STORAGE**

- Avoid contact with eyes and/or prolonged contact with skin.
- Atmospheric levels should be controlled in compliance with the occupational exposure limit for dust.

- Dry salt because of its hygroscopic nature, should be stored in a dry atmosphere and away from concentrated acids.
- Salt dust is non-flammable, but static electricity can be generated by pneumatic conveying, therefore pipes should be bonded and earthed, especially where a spark could prove hazardous.
- Solar salt can be stored in the open if desired, away from valued vegetation. A high concentration of salt can damage plant life.

#### **PERSONAL PROTECTION AND EXPOSURE CONTROLS**

- Wear suitable protective clothing, gloves and eye face protection.
- An approved dust mask should be worn if exposure to levels above the occupational exposure limit is likely.

#### **PHYSICAL PROPERTIES**

- A white crystalline solid.
- Melting point                    802°C
- Boiling point                    1413°C
- Solubility in water – freely soluble.
- Absorbs moisture from damp atmospheres above 75% relative humidity.
- Does not react with alkalis at ordinary temperatures.
- Reacts with strong sulphuric acid or nitric acid to give hydrogen chloride gas.
- Under wet conditions, can corrode many common metals, particularly iron, aluminium and zinc.
- Salt has a preservative effect on timber.
- Salt can be treated with part per million levels of a non-toxic anti-caking additive.

#### **HEALTH HAZARDS**

In normal use salt is not hazardous.

Skin	Dry salt and concentrated solutions can cause withdrawal of fluids from the skin and may, on prolonged contact produce irritation.
Eyes	Salt and salt solutions are not toxic to the eye but concentrations much above that of tears cause a stinging sensation.
Inhalation	Very high concentration of salt dust may result in inflammation of the mucus membranes of the respiratory tract.
Ingestion	Acute and chronic toxic effects can result from the ingestion of excessive amounts of either salt or brine. Salt should not be used as an emetic to induce vomiting. High concentrations produce inflammatory reactions in the gastrointestinal tract and cause vomiting, diarrhoea, convulsions and collapse. Ingestion of hypertonic

solutions can cause fatal disturbance of body electrolyte and fluid balance. Less than a table spoon of salt may severely poison an infant and sometimes prove fatal.

#### **ECOLOGICAL INFORMATION**

- High tonnage material with wide dispersed use.
- Solid with low volatility.
- Soluble in water.
- No potential for bioaccumulation.
- Predicted to have high mobility in soil.
- Toxicity – Low toxicity to aquatic organisms.

#### **WASTE DISPOSAL**

Disposal should be in accordance with local, national and European Community legislation.

## **MATERIAL SAFETY DATA SHEET – ROCK SALT**

**PRODUCT NAME:** ROCK SALT

**PRODUCT DESCRIPTION:** Sodium Chloride (NaCl). 99%

**HAZARDS IDENTIFICATION:** Unlikely to cause harmful effects under normal conditions of handling and use.

### **FIRST AID TREATMENT**

Skin	Wash with plenty of water.
Eyes	Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. If symptoms develop, obtain medical attention.
Inhalation	Remove patient to fresh air. Keep warm and at rest. Give drinks if desired.
Ingestion	Vomiting will probably occur. Wash out mouth with clean water. Providing the patient is conscious give 200-300ml (half a pint) of water to drink. Obtain immediate medical attention if ill-effects occur.

### **FIRE AND EXPLOSION HAZARDS**

- Non-combustible.
- Use fire fighting equipment as appropriate to surrounding fire.
- No special requirements for fire fighting protective equipment.
- Salt withstands temperatures up to its melting point and beyond without decomposing, but at very high temperatures (greater than approximately 800°C) a vapour is omitted which is particularly irritating to the eyes.

### **ACCIDENTAL RELEASE MEASURES**

- Clear up spillages.
- Transfer to a container for disposal.
- Wash the spillage area with water.
- Spillages or uncontrolled discharges into water courses, drains or sewers must be IMMEDIATELY alerted to the Environmental Agency/SEPA or other appropriate regulatory body.

### **HANDLING AND STORAGE**

- Avoid contact with eyes and/or prolonged contact with skin.
- Atmospheric levels should be controlled in compliance with the occupational exposure limit for dust.
- Dry salt because of its hygroscopic nature, should be stored in a dry atmosphere and away from concentrated acids.

- Salt dust is non-flammable, but static electricity can be generated by pneumatic conveying, therefore pipes should be bonded and earthed, especially where a spark could prove hazardous.
- Solar salt can be stored in the open if desired, away from valued vegetation. A high concentration of salt can damage plant life.

#### **PERSONAL PROTECTION AND EXPOSURE CONTROLS**

- Wear suitable protective clothing, gloves and eye face protection.
- An approved dust mask should be worn if exposure to levels above the occupational exposure limit is likely.

#### **PHYSICAL PROPERTIES**

- A red-brown crystalline solid.
- Melting point 802°C
- Boiling point 1413°C
- Solubility in water – freely soluble, with some insoluble marlstone residue.
- Absorbs moisture from damp atmospheres above 75% relative humidity.
- Does not react with alkalis at ordinary temperatures.
- Reacts with strong sulphuric acid or nitric acid to give hydrogen chloride gas.
- Under wet conditions, can corrode many common metals, particularly iron, aluminium and zinc.
- Salt has a preservative effect on timber.
- Salt can be treated with part per million levels of a non-toxic anti-caking additive.

#### **HEALTH HAZARDS**

In normal use salt is not hazardous.

**Skin** Dry salt and concentrated solutions can cause withdrawal of fluids from the skin and may, on prolonged contact produce irritation.

**Eyes** Salt and salt solutions are not toxic to the eye but concentrations much above that of tears cause a stinging sensation.

**Inhalation** Very high concentration of salt dust may result in inflammation of the mucus membranes of the respiratory tract.

**Ingestion** Acute and chronic toxic effects can result from the ingestion of excessive amounts of either salt or brine. Salt should not be used as an emetic to induce vomiting. High concentrations produce inflammatory reactions in the gastrointestinal tract and cause vomiting, diarrhoea, convulsions and collapse. Ingestion of hypertonic solutions can cause fatal disturbance of body electrolyte and fluid balance. Less than a table spoon of salt may severely poison an infant and sometimes prove fatal.

#### **ECOLOGICAL INFORMATION**

- High tonnage material with wide disperse use.
- Solid with low volatility.
- Soluble in water.
- No potential for bioaccumulation.
- Predicted to have high mobility in soil.
- Toxicity – Low toxicity to aquatic organisms.

#### **WASTE DISPOSAL**

Disposal should be in accordance with local, national and European Community legislation.